

MCEER-AIDG Coordinate with UN on Haiti Earthquake Engineering Relief Mission 10 Engineers Provide “Emergency Engineering Support” in Response to the Haiti Earthquake

On Thursday, January 21, 2010, MCEER director Andre Filiatrault led a team of 10 French-speaking engineers to Port-au-Prince, Haiti. Their mission was to assess the safety of buildings – principally, hospitals and food storage facilities – damaged by the January 12, 7.0M earthquake. The “Emergency Engineering Support” effort was initiated by the Appropriate Infrastructure Development Group (AIDG) on behalf of the United Nations. It was quickly joined by MCEER, with the University at Buffalo-based Center playing the pivotal role in the recruitment, selection and deployment of the initial structural engineering team. The seven-day mission was critical to easing the delivery of medical services, food and water to the Haitian people. Perhaps more importantly, it laid a foundation for a more sustainable UN effort to continue the evaluation of an estimated 100,000 damaged structures still standing in Port-au-Prince.



Dubbed the “Emergency Engineering Support Unit”, by UN officials, the team was stationed at the United Nations Stabilization Mission In Haiti (MINUSTAH), adjacent to the Port-au-Prince airport. Members included Andre Filiatrault (MCEER, University at Buffalo), team leader; Reginald DesRoches (Georgia Institute of Technology), Caroline Zennie (Parsons Corporation), Scott DeHollander (MRB Group), Wassim Ghannoum (University of Texas), Eddy Germain (New Jersey Department of Transportation), Dan Gregory (Green Energy Corporation), Gabrielle Rigaud (Tufts University), Jean-Philippe Simon (U.S. Department of Defense), and Vladimir Charles (Second Floor Studios).



Members of the AIDG-MCEER “Emergency Engineering Support” team pose together before their return from Port-au-Prince. They are (standing l to r): Andre Filiatrault, team leader; Jean-Philippe Simon, Reginald DesRoches, Dan Gregory, Scott DeHollander, Gabrielle Rigaud, Vladimir Charles, Eddy Germain, Caroline Zennie; (front) Wassim Ghannoum.

The team followed ATC-20-1 (*Applied Technology Council-20-1: Field Manual: Postearthquake Safety Evaluation of Buildings*) tagging procedures:

- **INSPECTED (Green):** Appears safe for lawful occupancy;
- **LIMITED ENTRY/RESTRICTED USE (Yellow):** Limited entry/use, controlled by building owner/manager;
- **UNSAFE (Red):** No entry unless controlled by jurisdiction.

ATC donated 15 field manuals and condensed instruction materials to the effort.

Upon arriving at the UN compound, the team met with relief officials to recommend and establish a protocol to field and fulfill inspection requests. They created a special email address (EES-Haiti@hotmail.com) and a database to log requests and monitor the inspection process to completion. Included for each facility are its GPS coordinates, assigned ATC-20-1 placards, and hyperlinks to corresponding ATC-20-1 evaluation reports and building photos, among other relevant information. These procedures have been adopted by the United Nations Office for Project Services (UNOPS), which will continue to direct emergency engineering support going forward.

One troubling aspect to the team was the realization that many hospitals and other critical facilities that remained undamaged following the earthquake were going unused as Haitians feared they would collapse from aftershocks. Consequently, medical procedures were being conducted outdoors, and a good deal of food and water needed for the relief, was going undistributed.

In addition to hospitals and food storage facilities, team members also assessed stability of other infrastructure including government buildings, UN buildings, embassies, and NGO headquarters. In all, they inspected [115 buildings](#).

Their volunteer efforts took place under the guidance of representatives from the United Nations Development Programme, Food for Health International, and other AIDG humanitarian partner organizations, that escorted them through the various inspection sites in Haiti. At times they traveled under the protection of UN forces.

Upon return to the U.S. the members of the team expressed how they were moved by the experience and the plight of the Haitian people. They are proud of the contributions they made to help speed relief at a time when it was needed most. All agree that they are changed by the experience, and now share a special bond.

The United Nations Office for Project Services (UNOPS) is continuing “Emergency Engineering Support” activities, which may take several months to complete. Those interested to volunteering their expertise to this continuing effort should contact:

Felipe Munevar
Manager a.i.
UNOPS
Haiti Project Centre
5, Impasse Delvime, rue Daniel Brun
Bois Moquette, Petion-Ville, Haiti
Tel. (509) 25 13 17 08 or (509) 25 13 17 09
Cell: (509) 37 02 35 36
E-mail: felipem@unops.org
UNOPS website: www.unops.org



Among the devastation in Port-au-Prince, medical facilities like this “green-tagged” DASH hospital went unused pending inspection, due to fear of aftershocks.